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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/747,716	12/29/2003	Kuo-Chang Yang	251702-1310	5874

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EXAMINER

CHANDRAN, BIJU INDIRA

ART UNIT	PAPER NUMBER
2835	

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/747,716	Applicant(s) YANG ET AL.	
	Examiner Biju Chandran	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (U.S. Patent 5,519,585) in view of Chuang (U.S. Patent 6,469,912 B1).

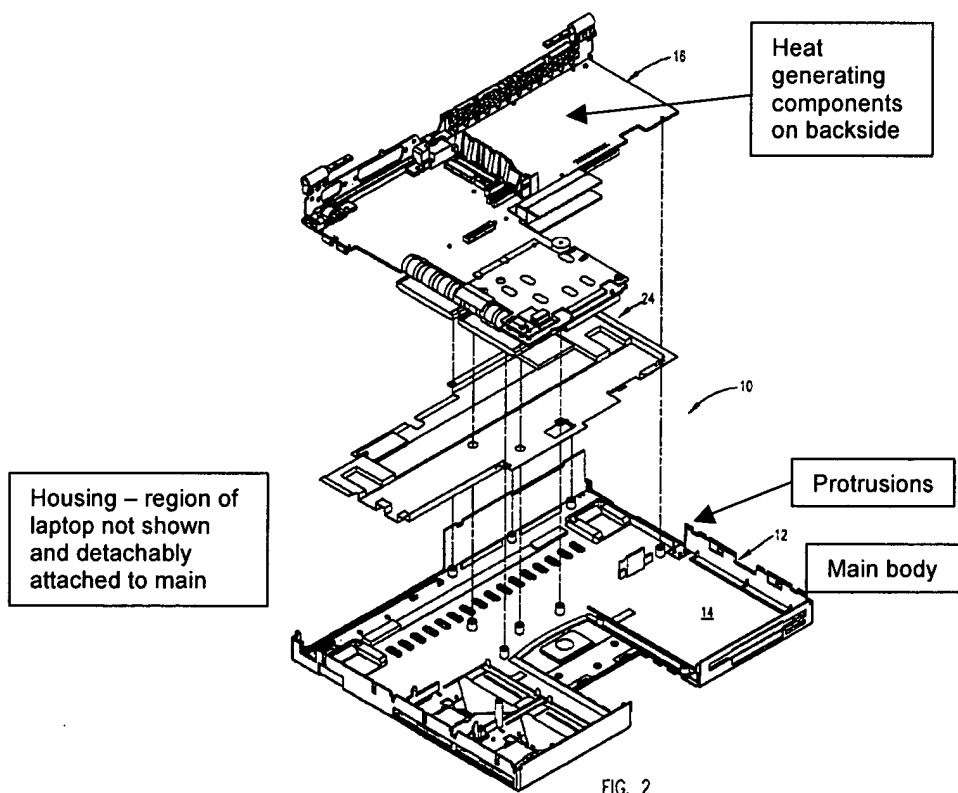
- Regarding claim 1, Jones et al. discloses an electronic device, comprising: a main body (12); a thermal insulation layer (44) (column 4, line 30) disposed on the inner surface of the main body; a conductive layer (46) fully covering the surface of the thermal insulation layer (column 3, line 41); an electrical insulation layer (48) partially covering the conductive layer (column 3, lines 55-60), leaving part exposed to dissipate heat from the electronic device. Jones et al. do not expressly disclose a hatch for the electronic device. Chuang discloses a hatch for an electronic device. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the invention of Jones et al. in the hatch of the electronic device disclosed by Chuang, to reduce the cost and improve the effectiveness of EMI barriers (Jones et al., column 3, line 10-20).

- With respect to claims 2 and 3, Jones et al. fails to specifically disclose the type of polymer film used as the thermal insulation layer. It would have been obvious to one of ordinary skill in the art to select any known insulative material such as PORON or Chloroprene rubber based upon routine experimentation to determine which material would be most readily available and cost effective. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.
- With respect to claims 4 and 5, Jones et al. fails to specifically disclose the material of the conductive layer. It would have been obvious to one of ordinary skill in the art to select any known conductive material such as copper foil or aluminum based upon routine experimentation to determine which material would be most readily available and cost effective. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.
- Regarding claim 6, Jones et al. fails to specifically disclose the material of the electrical insulation layer. It would have been obvious to one of ordinary skill in the art to select any known electrical insulation material such as Mylar based upon routine experimentation to determine which

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material would be most readily available and cost effective. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

- Regarding claim 7, Jones et al. further disclose a hole (40) in the main body.
- Regarding claim 8, Jones et al. further disclose protrusions on the edge of the main body.
- Regarding claim 9, Jones et al. further disclose the electronic device to be a notebook computer (column 2, line 65).



- Regarding claim 10, Jones et al. disclose a notebook computer having a housing (regions of laptop not shown in figure) comprising: a main body (12) detachably disposed on the housing; a thermal insulation layer (44) disposed on a side of the main body, wherein the side is adjacent to heat-generating components (22); a conductive layer (46) covering the surface of the thermal insulation layer (column 3, line 41); an electrical insulation layer (48) partially covering the conductive layer, leaving part of the conductive layer is exposed (column 3, line 55-60), and heat from the component is insulated by the thermal insulation layer. Jones et al. do not explicitly disclose a hatch for the electronic device. Chuang discloses a hatch for an electronic device. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to incorporate the invention of Jones et al. in the hatch of the electronic device disclosed by Chuang, to provide and an access port for the user to replace components without having to dismantle the electronic device.
- With respect to claims 11 and 12, Jones et al. fails to specifically disclose the type of polymer film used as the thermal insulation layer. It would have been obvious to one of ordinary skill in the art to select any known insulative material such as PORON or Chloroprene rubber based upon routine experimentation to determine which material would be most readily available and cost effective. It has been held to be

within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

- With respect to claims 13 and 14, Jones et al. fails to specifically disclose the material of the conductive layer. It would have been obvious to one of ordinary skill in the art to select any known conductive material such as copper foil or aluminum based upon routine experimentation to determine which material would be most readily available and cost effective. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.
- Regarding claim 15, Jones et al. fails to specifically disclose the material of the electrical insulation layer. It would have been obvious to one of ordinary skill in the art to select any known electrical insulation material such as Mylar based upon routine experimentation to determine which material would be most readily available and cost effective. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

- Regarding claim 16, Jones et al. further disclose a hole (40) in the main body.
- Regarding claim 17, Jones et al. further disclose protrusions on the edge of the main body.
- Regarding claim 18, Jones et al. further disclose that that the conductive layer is disposed between the electrical insulation layer and the thermal insulation layer (see figure 4, Jones et al.)
- Regarding claim 19, Jones et al. further disclose that that the electrical insulation layer is disposed between the component and the conductive layer (see column 3, lines 43-45, Jones et al.)

### ***Response to Arguments***

Applicant's arguments filed on 11/23/2005 have been fully considered but they are not persuasive. Described below are the reasons why.

Regarding the 'thin film polymer substrate' disclosed in Jones et al. (US 5,519,585) not being equivalent to the 'thermal insulation disposed on the main body of the hatch'. At the time of the invention, it would have been obvious to one of ordinary skill in the art that a polymer material has poor thermal conductivity and is a thermal insulator (Prediction of polymer properties, Bicerano, Jozef, P309, Marcel Dekker, Inc., 1993, middle of the page - section numbered 2).

Regarding the applicant's argument that the polymer substrate in Jones et al. is not disposed on the main body of the hatch. Merriam-Webster Online dictionary defines



'dispose' as to arrange, or to put in place. By this definition, the thermal insulation layer (polymer substrate) disclosed by Jones et al. is disposed on the inside surface of the main body. As pointed out in the rejection, it is true that Jones et al. do not disclose a hatch. However, as mentioned in the rejection of claims 1 and 10, it would have been an obvious matter to incorporate the hatch feature from Chuang (US 6,469,912 B1).

Regarding the applicant's argument that since the polymer substrate is provided as an EMI shield structure, it cannot be equated to the thermal insulation layer since Jones et al. does not explicitly disclose that the polymer substrate as a 'thermal insulation layer' such that heat from the component is insulated by the thermal insulation layer. However, as described earlier the polymer substrate is inherently a thermal insulator and the structure of the polymer substrate disclosed by Jones et al. is the same as that described by the applicant in claims 1 and 10. Therefore, although Jones et al. does not explicitly disclose that the polymer substrate is used to insulate the heat from the components, it inherently serves that function.

In response to applicant's argument that there is no suggestion to combine the Jones et al. and Chuang references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Chuang does point out that the cover member (hatch) and the access port that it covers,

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provides a way to permit access to electronic components inside the housing while maintaining the EMI shielding of the electronic components (abstract). Jones et al. discloses a technique to provide EMI shielding the components within a housing using a polymer substrate (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teaching of Chuang with Jones et al.'s disclosure to provide access to the enclosed components.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

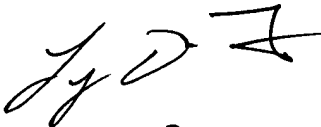
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Biju Chandran whose telephone number is (571) 272-5953. The examiner can normally be reached on 8AM - 5PM. Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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